

APPENDIX E: SAMPLE FORM FOR QUICK REVIEW DATA QUALITY CHECK

HOSPITAL

Thank you for submitting your CCMRP data.

A quick review of your data shows **XX** isolated CABGs were reported for the **X** quarter of 1999. We have identified the following potential problems in your data submission (checks indicate one or more records with the specified problem):

Missing data

<input type="checkbox"/> Date of Surgery	<input type="checkbox"/> Gender	<input type="checkbox"/> Date of Birth	<input type="checkbox"/> Race/Ethnicity
<input type="checkbox"/> Insurer	<input type="checkbox"/> Patient Zip Code	<input type="checkbox"/> Height	<input type="checkbox"/> Weight
<input type="checkbox"/> Creatinine	<input type="checkbox"/> Hypertension	<input type="checkbox"/> Dialysis	<input type="checkbox"/> Diabetes
<input type="checkbox"/> PVD	<input type="checkbox"/> CVD	<input type="checkbox"/> Arrhythmia	<input type="checkbox"/> MI
<input type="checkbox"/> Most Recent MI	<input type="checkbox"/> Prior # Heart Ops	<input type="checkbox"/> Most Recent Op	<input type="checkbox"/> Prior # PTCAs
<input type="checkbox"/> PTCA	<input type="checkbox"/> Interval (PTCA)	<input type="checkbox"/> COPD	<input type="checkbox"/> CHF
<input type="checkbox"/> Angina	<input type="checkbox"/> Unstable Angina	<input type="checkbox"/> NYHA	<input type="checkbox"/> CCS
<input type="checkbox"/> Status (acuity)	<input type="checkbox"/> Ejection Fraction	<input type="checkbox"/> EF Method	<input type="checkbox"/> Left Main Stenosis
<input type="checkbox"/> # Diseased Vessels	<input type="checkbox"/> Mitral Insufficiency	<input type="checkbox"/> Cross Clamp Time	<input type="checkbox"/> Perfusion Time
<input type="checkbox"/> IMA Used	<input type="checkbox"/> Cardioplegia	<input type="checkbox"/> Date of Discharge	<input type="checkbox"/> Discharge Status
<input type="checkbox"/> Date of Death			

Logic problems

<input type="checkbox"/> Angina = "yes" (1) but no Unstable Angina reported	<input type="checkbox"/> Angina = "no" (0) but Unstable Angina reported
<input type="checkbox"/> MI = "yes" (1) but no MI Date reported	<input type="checkbox"/> MI = "no" (0) but MI Date is reported
<input type="checkbox"/> Current PTCA = "yes" (1) but no Interval reported	<input type="checkbox"/> Current PTCA = "no" (0) but Interval reported
<input type="checkbox"/> Angina = "no" (0) but CCS greater than II	<input type="checkbox"/> Unstable Angina = "unstable" but CCS less than III
<input type="checkbox"/> Creatinine greater than 6 but Dialysis = "no"	<input type="checkbox"/> Discharge status = "Dead" but no date of death
<input type="checkbox"/> Discharge date earlier than surgery date	
<input type="checkbox"/> Ejection Fraction reported but no Method of Measurement is reported	

Out of range values

<input type="checkbox"/> Ejection Fraction less than 10%	<input type="checkbox"/> Creatinine Level greater than 14.9
<input type="checkbox"/> Surgery Date prior to 1999	<input type="checkbox"/> Discharge date prior to 1999
<input type="checkbox"/> Date of Birth later than 1981	<input type="checkbox"/>

You may resubmit the data for this report period after the problems have been resolved, or wait and resubmit corrected data with the next quarter.

APPENDIX F: CCMRP SAMPLE DATA QUALITY REPORT

Univariate Comparison of Sample Hospital Data to All Data Submissions

HOSPITAL DATA SUMMARY REPORT - CCMRP 1999						
Sample Hospital						
Submissions in 1999:						
	Hospital			California		
	Total	Duplicates	% Duplicated	Total	Duplicates	% Duplicated
Q1:	25	0	0	5,586	0	0
Q2:	30	0	0	5,835	2	0.03
Q3:	22	0	0	5,298	3	0.06
Q4:	30	0	0	5,448	1	0.02
All:	107	0	0	22,166	6	0.03
For all frequency distributions shown in the following tabulations, duplicate records were removed.						
Status at Discharge:						
		California				
Missing	0 (0.0%)	36 (0.2%)				
Alive	101 (94.3%)	21,518 (97.1%)				
Dead	6 (5.7%)	612 (2.8%)				
Age:						
	Hospital	California				
Missing	0 (0.0%)	1 (0.0%)				
18 to 49		1,525 (6.9%)				
50 to 59	19 (17.9%)	4,487 (20.2%)				
60 to 69	40 (37.7%)	6,827 (30.8%)				
70 to 79	34 (32.1%)	7,364 (33.2%)				
80 or older	7 (6.6%)	1,962 (8.9%)				
Sex:						
	Hospital	California				
Missing	0 (0.0%)	11 (0.0%)				
Female		6,006 (27.1%)				
Male *	75 (70.8%)	16,149 (72.9%)				
Race:						
	Hospital	California				
Missing	0 (0.0%)	73 (0.3%)				
Non-White	50 (46.2%)	5,590 (25.2%)				
White *	57 (53.8%)	16,503 (74.5%)				
Myocardial Infarction:						
	Hospital	California				
Missing	0 (0.0%)	459 (2.1%)				
None *	57 (53.8%)	11,327 (51.1%)				
Less than 24 hrs.	0 (0.0%)	792 (3.6%)				
1-6 days	10 (9.4%)	3,977 (17.9%)				
7-20 days	13 (12.3%)	974 (4.4%)				
21 days or more	26 (24.5%)	4,637 (20.9%)				
Diseased Vessels:						
	Hospital	California				
Missing	2 (1.9%)	300 (1.4%)				
None	0 (0.0%)	164 (0.7%)				
One *	4 (3.8%)	1,255 (5.7%)				
Two	22 (20.8%)	4,130 (18.6%)				
Three or more	78 (73.6%)	16,317 (73.6%)				
Ejection Fraction:						
	Hospital	California				
Missing	23 (21.7%)	1,381 (6.2%)				
<20%	4 (3.8%)	180 (0.8%)				
20% to 29%	10 (9.4%)	1,004 (4.5%)				
30% to 39%	11 (10.4%)	1,961 (8.8%)				
40% to 49%	19 (17.9%)	3,688 (16.6%)				
50% or more *	39 (36.8%)	13,952 (62.9%)				

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HOSPITAL DATA SUMMARY REPORT - CCMRP 1999						
Sample Hospital						
Hypertension:				Creatinine:		
	Hospital	California			Hospital	California
Missing	0 (0.0%)	79 (0.4%)		Missing	3 (2.8%)	3,641 (16.4%)
No *	43 (40.6%)	6,770 (30.5%)		<2.0 *	97 (91.5 %)	17,468 (78.8 %)
Yes	63 (59.4%)	15,317 (69.1%)		2.0 to 3.9	5 (4.7%)	675 (3.0%)
				4.0 to 7.9	0 (0.0%)	258 (1.2%)
				8.0 or more	1 (0.9%)	124 (0.6%)
COPD:						
	Hospital	California				
Missing	0 (0.0%)	325 (1.5%)				
No *	99 (93.4%)	18,902 (85.3%)				
Yes	7 (6.6%)	2,939 (13.3%)				
Angina:						
	Hospital	California				
Missing	0 (0.0%)	98 (0.4%)				
None	77 (72.6%)	2,707 (12.2%)				
Stable *	24 (22.6%)	7,111 (32.1%)				
Unstable	5 (4.7%)	12,250 (55.3%)				
Dialysis:						
	Hospital	California				
Missing	0 (0.0%)	938 (4.2%)				
No *	104 (98.1%)	20,762 (93.7%)				
Yes	2 (1.9%)	466 (2.1%)				
Diabetes:						
	Hospital	California				
Missing	0 (0.0%)	93 (0.4%)				
No *		14,478 (65.3%)				
Yes	37 (34.9%)	7,595 (34.3%)				
PTCA:						
	Hospital	California				
Missing	89 (84.0%)	8,554 (38.6)				
No *	1 (0.9%)	12,904 (58.2%)				
Yes	16 (15.1%)	708 (3.2%)				

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Univariate Comparison of Sample Hospital Data to All Data Submissions

HOSPITAL DATA SUMMARY REPORT - CCMRP 1999			
Sample Hospital			
Peripheral Vascular Disease:			CCS Class:
	Hospital	California	
Missing	0 (0.0%)	118 (0.5%)	Missing
No *	88 (83.0%)	18,994 (85.7%)	I
Yes	18 (17.0%)	3,054 (13.8%)	II
			III *
			IV
Ventricular Arrhythmia:			
	Hospital	California	
Missing		2,496 (11.3%)	NYHA Class:
No *	105 (99.1%)	18,638 (84.1%)	
Yes	1 (0.9%)	1,032 (4.7%)	Missing
			I *
			II
			III
			IV
Number of Operations:			
	Hospital	California	
Missing	0 (0.0%)	3,902 (17.6%)	
First *	85 (80.2%)	16,717 (75.4%)	
Second	16 (15.1%)	1,390 (6.3%)	
Third	5 (4.7%)	144 (0.6%)	
Four+	0 (0.0%)	13 (0.1%)	
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Notes: 1. Per default, for analytic purposes missing values will be assigned to the starred category.			
2. If greater than 0, the number and percent of missing values for a variable is bolded.			

APPENDIX F: CCMRP SAMPLE DATA QUALITY REPORT

Patient-Level Report

*California CABG Mortality Reporting Program - Year 1999
Hospital ID=123456 Example Hospital*

Patient Height Out of Range or Not Reported in Centimeters

Date of Surgery	Date of Birth	Sex	Race/Ethnicity	Date of Discharge	Status at Discharge	Wt. Kilo	Ht. CM
7/16/2000	6/16/19XX	F	Caucasian	7/23/2000	ALIVE	88.90	118.8
7/24/2000	7/15/19XX	F	Other	7/29/2000	ALIVE		
9/5/2000	7/28/19XX	M	Caucasian	9/10/2000		112.4	

PTCA/Atherectomy Indicated but No PTCA to Surgery Time Interval Given

Date of Surgery	Date of Birth	Sex	Race/Ethnicity	Date of Discharge	Status at Discharge	PTCA/Atherectomy	PTCA to Surgery Time
7/31/2000	10/16/19XX	F	Caucasian	8/7/2000	ALIVE	1	
8/20/2000	2/4/19XX	F	Black	8/24/2000	ALIVE	1	

Value Missing for Priority of Operation (ACUITY: Elective/Urgent/Emergent/Salvage)

Date of Surgery	Date of Birth	Sex	Race/Ethnicity	Date of Discharge	Status at Discharge	Operation Acuity
8/30/2000	2/23/19XX	F	Caucasian	9/2/2000	ALIVE	
9/11/2000	11/21/19XX	F	Caucasian	9/14/2000	ALIVE	
12/20/2000	9/21/19XX	M	Caucasian	12/26/2000	ALIVE	

Creatinine Level Value >=7.0 Recorded but No Record of Dialysis or Dialysis Recorded NO

Date of Surgery	Date of Birth	Sex	Race/Ethnicity	Date of Discharge	Status at Discharge	Dialysis	Creatinine
6/8/2000	11/18/19XX	M	3	6/13/2000	ALIVE	No	7.9

NO PTCA/Atherectomy Indicated but PTCA to Surgery Time Interval Given

Date of Surgery	Date of Birth	Sex	Race/Ethnicity	Date of Discharge	Status at Discharge	PTCA to Surgery Time	PTCA/Atherectomy
8/1/2000	11/25/19XX	M	Asian	8/5/2000	ALIVE	<=6 hrs	